

**ABSTRACT OF THE DISCLOSURE:**

[0035] In a coaxial multiplex position detecting apparatus for a rotating machine, a stator includes stator pieces, each stator piece individually being  
5 split in a circumferential direction of the stator, an exciting current winding, and a detection winding, the exciting current winding and the detection winding being wound on the respective stator pieces, and a plurality of rotors are disposed on outside  
10 and inside positions of the stator in a radial direction of the stator, the respective rotors having convex and recess portions in accordance with the number of poles that the respective rotors have and having different numbers of poles according to the  
15 inside and outside positions of the rotors from each other, revolution positions of the respective rotors being determined according to an output signal of the detection winding of the stator.

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